UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 13, 2011

Mr. Brian J. O'Grady, Vice President-Nuclear
and Chief Nuclear Officer
Nebraska Public Power District
Cooper Nuclear Station
72676 648A Ave
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT 05000298/2011007

Dear Mr. O'Grady:

On April 28, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Cooper Nuclear Station, using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on April 28, 2011, with Mr. D. Willis, General Manager Plant Operations, and other members of your staff.

The objective of this inspection was to assess the adequacy of actions taken at Cooper Nuclear Station in response to the Fukushima Daiichi Nuclear Station fuel damage event. The results from this inspection, along with the results from similar inspections at other operating commercial nuclear plants in the United States, will be used to evaluate the United States nuclear industry's readiness to respond to a similar event. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report. You are not required to respond to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Vincent G. Gaddy, Chief
Project Branch C
Division of Reactor Projects

Docket: 50-298
License: DRP-46

Enclosure:
NRC Inspection Report 05000298/2011007
w/Attachment: Supplemental Information

cc: w/Enclosure:

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DRP Deputy Director (Troy.Pruett@nrc.gov)
DRS Director (Tony.Vegel@nrc.gov)
DRS Deputy Director (Vacant@nrc.gov)
Senior Resident Inspector (Jeffrey.Josey@nrc.gov)
Resident Inspector (Michael.Chambers@nrc.gov)
Branch Chief, DRP/C (Vincent.Gaddy@nrc.gov)
Senior Project Engineer, DRP/C (Bob.Hagar@nrc.gov)
Project Engineer, DRP/C (Rayomand.Kumana@nrc.gov)
CNS Administrative Assistant (Amy.Elam@nrc.gov)
Public Affairs Officer (Victor.Dricks@nrc.gov)
Public Affairs Officer (Lara.Uselding@nrc.gov)
Project Manager (Lynnea.Wilkins@nrc.gov)
Branch Chief, DRS/TSB (Michael.Hay@nrc.gov)
RITS Coordinator (Marisa.Herrera@nrc.gov)
Regional Counsel (Karla.Fuller@nrc.gov)
NRR/DIRS/IRIB (Timothy.Kobetz@nrc.gov)
Congressional Affairs Officer (Jenny.Weil@nrc.gov)
Regional State Liaison (Bill.Maier@nrc.gov)
NSIR/DRP/EP (Eric.Schrader@nrc.gov)
OEMail Resource
ROPreports
RIV Executive Technical Assistant (Stephanie.Bush-Goddard@nrc.gov)
DRS/TSB STA (Dale.Powers@nrc.gov)

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ADAMS: □ No ☑ Yes	☑ SUNSI Review Complete	Reviewer Initials: VGG
	☑ Publicly Available	☑ Non-Sensitive
	□ Non-publicly Available	□ Sensitive

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U. S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket:	05000298
License:	DRP-46
Report:	05000298/2011007
Licensee:	Nebraska Public Power District
Facility:	Cooper Nuclear Station
Location:	72676 648A Ave Brownville, NE 68321
Dates:	March 23 through April 28, 2011
Inspectors:	J. Josey, Senior Resident Inspector M. Chambers, Resident Inspector
Approved by:	Vincent G. Gaddy, Chief, Project Branch C Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000298/2011007, 03/23/2011 – 04/28/2011; Cooper Nuclear Station Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced temporary instruction inspection. The inspection was conducted by resident and Region IV inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

INSPECTION SCOPE

The intent of the temporary instruction is to be a high-level look at the industry's preparedness for events that may exceed the design basis for a plant. The focus of the temporary instruction was on (1) assessing the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats; (2) assessing the licensee's capability to mitigate station blackout conditions; (3) assessing the licensee's capability to mitigate internal and external flooding events required by station design; and (4) assessing the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific followup inspection will be performed at a later date.

INSPECTION RESULTS

The following table documents the NRC inspection at Cooper Nuclear Station performed in accordance with Temporary Instruction 2515/183. The numbering system in the table corresponds to the inspection items in the temporary instruction.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines (SAMG) and as required by 10 CFR 50.54(hh). Use Inspection Procedure 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If Inspection Procedure 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:	
Licensee Action	Describe what the licensee did to test or inspect equipment.
a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested. This review should be done for a reasonable sample of mitigating strategies/equipment.	The licensee reviewed its B.5.b commitments, severe accident management guidelines, and station-specific emergency operating procedures to ensure the basis for the station's actions to respond to and mitigate conditions that result from a beyond-design-basis event. The licensee also verified the permanently installed passive plant systems through plant walkdowns and inspection, and conducted testing of temporary equipment. The licensee conducted these activities in accordance with current station procedures.
	Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).
	The inspectors reviewed NRC Security Order Section B.5.b issued February 25, 2002, the station's severe accident management guidelines, and station-specific emergency operating procedures to understand the licensee's implementation strategies and equipment necessary for the station's actions to respond to and mitigate conditions that result from a beyond design basis event. The inspectors reviewed the most recent performance data and test records associated with special tools/additional equipment required to facilitate the station's credited strategies. The inspectors independently performed walkdowns of passive equipment and verified that equipment was prestaged in accordance with station procedures. The inspectors discussed testing, maintenance, storage, transport (where applicable), and training requirements for credited equipment with the licensee. Additionally, the inspectors searched the licensee's corrective action

		program database for items that could impact the ability of the credited equipment to perform its intended function.
		Discuss general results including corrective actions by licensee.
		The licensee determined that it had previously identified all special tools and equipment required to facilitate the station's credited strategies. The licensee has an issue documented in Inspection Report 05000298/2010006, "Cooper Nuclear Station - NRC Triennial Fire Protection Inspection Report," dated March 17, 2011, which is relevant to this inspection scope: • A noncited violation of 10 CFR 50.65(a)(2) was indentified for the licensee's failure to monitor the performance of the emergency lighting system against the established performance criteria. In response, the licensee revised the maintenance rule function associated with these emergency lights to include the required performance data. The inspectors determined that this revision will correct this issue and ensure that the emergency lights are appropriately monitored. During inspections of fire hoses stored in the facilities warehouse, the licensee identified that two fire hoses did not have hydrostatic test dates marked on them. These two hoses were replaced. Not all vendor recommended preventative maintenance items were being performed on the portable fire pump. These issues were entered into the corrective action program for resolution.
Licensee Action		Describe the licensee's actions to verify that procedures are in place and can be executed (e.g., walkdowns, demonstrations, tests, etc.)
b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place		The licensee's procedures that implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are on a periodic refresher training cycle. The licensee verified through walkdowns or demonstrations that the station procedures to implement these beyond design basis coping strategies were in place and able to be performed as written.

and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification. This review should be done for a reasonable sample of mitigating strategies/equipment.		Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.
		The inspectors performed reviews of selected station emergency operating procedures and all of the severe accident management guideline procedures, in conjunction with walkdowns, to verify that the procedures were feasible and could be executed as written with the specified equipment. The inspectors also reviewed all of the documented results from the licensee's reviews of station procedures, as well as any identified discrepancies and proposed enhancements. The inspectors determined that the licensee had procedures in place, and that these procedures were effective, had current training associated with them, and could be implemented as written with available equipment and personnel.
		Discuss general results including corrective actions by licensee.
		The licensee has an issue documented in Inspection Report 05000298/2010006, "Cooper Nuclear Station - NRC Triennial Fire Protection Inspection Report," Dated March 17, 2011, that is relevant to this inspection scope: • An apparent violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and Criterion XVI, "Corrective Action," with a preliminary white significance, was identified for the licensee's failure to ensure that some steps contained in emergency procedures at Cooper Nuclear Station would work as written and the concurrent failure to assure that a condition adverse to quality was promptly identified and corrected. Other licensee procedures that were reviewed were effective in ensuring that the desired actions could be accomplished with the specified equipment. The procedures were logically organized, clearly written, and could be performed by the most junior operator. The licensee identified that some of the required equipment was not prestaged as specified by the procedures. The equipment was located, and verified to be on hand. Also, there was no maintenance activity to inventory the required special tools to perform a manual drain of the scram discharge volume. The correct tools were verified to be present and the

		licensee initiated a recurring maintenance task to perform this inventory. The licensee entered these deficiencies into the corrective action program.
Licensee Action		Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.
c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).		The licensee determined, although there is required training associated with B.5.b and severe accident management guidelines, there are no specific qualifications associated with B.5.b requirements or severe accident management guidelines. As such, the licensee performed a review of training documentation, lesson plans, and qualification matrices, to verify that key operations and support staff personnel needed to implement B.5.b procedures and work instructions are trained to implement these strategies.
		Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.
		The inspectors performed independent reviews of selected station lesson plans, qualification status, and training documentation to verify that required personnel were current in their training. The inspectors performed walkdowns and discussions of selected strategies to ensure that the required personnel knew equipment locations, how to operate the equipment, and could complete the selected procedures as written.
		Discuss general results including corrective actions by licensee.
		The inspectors determined that the licensee's procedures were effective and provide reasonable assurance that the desired actions could be accomplished by the most junior operator. The licensee identified that the station had not established a continuing training activity associated with the severe accident management guidelines portable diesel generator. The license determined that station operators were taught during initial qualification about the operation of this diesel, but this was not being done on a recurring

		basis. The licensee reviewed training documentation and conducted interviews walkdowns, and a test run of the diesel to verify that operators were familiar with the equipment's operation and the actions required to start the diesel.
Licensee Action		Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.
d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events. This review should be done for a reasonable sample of mitigating strategies/equipment.		The licensee verified through review that Letters of Agreement with state and local entities as required by NUREG 0645, "Emergency Support and Resources," were adequate and current.
		For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current).
		The inspectors reviewed a sampling of the Letters of Agreement that the licensee maintains with offsite organizations that deal with supporting the facility relative to the sites emergency plan.
		Discuss general results including corrective actions by licensee.
		During its review, the licensee identified that one Letter of Agreement had an end date of December 31, 2010. The organization was immediately contacted, and the licensee verified through verbal agreement that the conditions of the Letter of Agreement were still in effect until a new signed agreement was in place. This issue was entered into the station's corrective action program.

Licensee Action		Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy.
e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted.		The licensee has two issues documented in Inspection Report 05000298/2010006, "Cooper Nuclear Station - NRC Triennial Fire Protection Inspection Report," dated March 17, 2011, that are relevant to this inspection scope: • An apparent violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," and Criterion XVI, "Corrective Action," with a preliminary white significance, was identified for the licensee's failure to ensure that some steps contained in emergency procedures at Cooper Nuclear Station would work as written and the concurrent failure to assure that a condition adverse to quality was promptly identified and corrected. • A noncited violation of 10 CFR 50.65(a)(2) was indentified associated with the licensee's failure to monitor the performance of the emergency lighting system against the established performance criteria. The licensee is capturing all items associated with its review of the Fukushima event in the corrective action program as individual condition reports. The licensee has identified the following discrepancies: current revision of the vendor manual for the portable fire pump not staged with the pump (CR-CNS-2011-2770), outdated copies of Missouri State and Atchison County emergency plans (CR-CNS-2011-2878), no maintenance activity to inventory the required special tools to perform a manual drain of the scram discharge instrument volume (CR-CNS-2011-2921), and other miscellaneous items. The inspectors determined that none of the identified deficiencies would be expected to impact the success of any of the severe accident actions.

03.02 Assess the licensee's capability to mitigate station blackout conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to Temporary Instruction 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22," as a guideline. It is not intended that Temporary Instruction 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:	
Licensee Action	Describe the licensee's actions to verify the adequacy of equipment needed to mitigate a station blackout event.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	The licensee reviewed 10 CFR 50.63, Regulatory Guide 1.155, NUMARC 87-00, and the plant specific licensing basis, such as the Updated Safety Analysis Report, to ensure the basis for the station's actions for a station blackout. As a result of Cooper Nuclear Station being credited as a battery only coping station, which does not credit AC power for the specified duration of the blackout event (4 hours), the station's safety related emergency batteries are required to have adequate capacity to support the calculated blackout loads for the required duration of the event. Therefore, Cooper Nuclear Station does not need special tools or equipment to mitigate station blackout conditions. However, part of the station's severe accident management guidelines credits a portable diesel generator that is used as part of the beyond design basis coping strategy for dealing with blackout conditions that exceed the specified duration of 4 hours. While this diesel is part of the equipment described in Section 03.01 of this report, the licensee verified and tested this diesel as part of their station blackout verification process. This diesel constitutes a piece of special equipment that requires special tools to facilitate its operation. The licensee verified through walkdowns, document reviews, inspections, and testing of applicable equipment their ability to mitigate conditions that result from a station blackout event. In addition, the licensee verified through inspections, walkdowns, testing, and equipment inventories that required equipment and components associated with the portable diesel generator credited in the station's severe accident management guidelines were in their designated locations and capable of performing their intended function.

		Describe inspector actions to verify equipment is available and useable.
		The inspectors reviewed the licensee's Updated Safety Analysis Report, the station's documented blackout coping strategy, and station-specific procedures to understand the implementation and required actions to facilitate the station's battery only blackout coping strategy. The inspectors also reviewed the licensee's actions necessary to use the severe accident management guidelines portable diesel generator. The inspectors walked down the station's emergency batteries and the portable diesel generator looking for material conditions/deficiencies that could call into question their abilities to function and to mitigate severe accidents. The inspectors also reviewed surveillance test data for the safety related batteries and test data from the 4-hour run of the portable diesel generator. Additionally, the inspectors performed a search of the station's corrective action program database for condition reports that documented issues that could impact the operability/functionality of the batteries or portable diesel generator.
		Discuss general results including corrective actions by licensee.
		No operability/functionality concerns were identified during the inspectors, walkdowns or reviews. During the licensee's reviews and walkdowns the licensee identified that portable fans used as part of the station's severe action management guidelines response were not built correctly to allow transport; the fans required a change to the wheel orientation to allow them to be moved. The licensee further indentified that not all of the vendor's recommended preventative maintenance items for the portable diesel generator were included in the station's preventative maintenance schedule. These items were entered into the station's corrective action program.

Licensee Action		Describe the licensee's actions to verify the capability to mitigate a station blackout event.
b. Demonstrate through walkdowns that procedures for response to a station blackout are executable.		The licensee performs routine surveillance testing on the station's safety related batteries to verify their ability to perform their intended functions, which includes a station blackout event. The licensee also used station operators and electrical maintenance personnel to complete field walkdowns of their proceduralized blackout strategy as described in station Procedure 5.3, "Station Blackout." The licensee verified that the simulator-based training program incorporates scenarios which include station blackout.
		Describe inspector actions to assess whether procedures were in place and could be used as intended.
		The inspectors reviewed the licensing basis for the plant as well as the documented coping strategy to verify that the facility was a battery only coping plant. The inspectors verified that the licensee's battery surveillance procedures were the correct revision, could be performed as written, and had been performed satisfactorily within the technical specification specified periodicity. The inspectors verified that the operators had been trained periodically on station blackout actions in the plant simulator; the last training cycle was September 21, 2010, through October 29, 2010. The inspectors also reviewed results of the licensee's 4-hour test run of the severe accident management guidelines portable diesel generator.
		Discuss general results including corrective actions by licensee.
		The licensee determined that Procedure 5.3, "Station Blackout," was achievable as written. The inspectors determined that that the licensee's battery surveillance procedures were the correct revisions, could be performed as written, and had been performed satisfactorily within the periodicity required by technical specifications. The inspectors' review did not identify a new issue.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to Inspection Procedure 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding," as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.		
Licensee Action		Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.		The licensee reviewed the Updated Safety Analysis Report, to identify the licensing basis external flood level (903 feet mean sea level), critical structures potentially affected, barriers important to resisting the effects of external flooding, and general flood relief paths credited in the current design basis. The review also identified the principal safety related structures required for safe shutdown which require protection. These structures include the reactor building, control building, intake structure, diesel generator building, controlled corridor, and the drywell and suppression chamber. The licensee also verified that Surveillance Procedure 6.SUMP.601, which verifies the condition of the seals and proper functioning of the sump, was being performed once per operating cycle; it was last performed October 28, 2009. This verification was done in regard to the Z sump, which contains equipment essential to the operation of the standby gas treatment system, and is below 903 feet mean sea level. The licensee also reviewed its current licensing basis for internal flooding relative to high and medium-energy line breaks. During this review, the licensee determined the affected rooms, and then individually reviewed on a room-by-room basis the type of break, worst case break, flow rate, flood height and minimum height of essential equipment in the area. The licensee then performed plant walkdowns and visual inspections to verify that accessible doors, barriers, and penetration seals were functional, and to look for apparent signs of degradation. The licensee also performs monthly walkdowns of areas of the reactor building to validate design conditions and in support of an update to the associated internal flooding calculations.

		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
		The inspectors performed independent reviews of the Updated Safety Analysis Report as well as the internal and external flooding calculations of record. The inspectors then performed independent walkdowns of external and internal doors, seals and penetrations. The inspectors observed the material condition of equipment used to detect and mitigate flooding conditions. The inspectors reviewed records of the licensee's preventative maintenance program to ensure that installed flood mitigation equipment was being properly maintained. Additionally, the inspectors performed searches of the licensee's corrective action program database for items that could impact the ability of the credited equipment to perform its intended function.
		Discuss general results including corrective actions by licensee.
		Inspectors are closing Unresolved Item 05000298-2010005-06, "Failure to Update Flood Protection for Safety Related Buildings," in Inspection Report 05000298/2011002. The inspectors will be documenting resolution of an issue associated with an internal flooding concern, the blocking of analyzed flow paths on the 903 foot elevation of the reactor building without proper prior analysis, in Inspection Report 05000298/2011003. The licensee walkdowns identified minor material conditions that were entered into the station's corrective action program for resolution: however, none of these conditions would have prevented the barriers from functioning. The inspectors' review did not identify a new issue.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use Inspection Procedure 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.		
Licensee Action		Describe the licensee's actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies.
a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.		The licensee performed station walkdowns to inspect and assess the material condition/functionality of equipment important to safety needed to mitigate a flood or fire following a safe shutdown earthquake. This included external visual inspection of associated pumps, diesels, motors, breakers, pipes, valves, tanks, intake structures, hoses, and fittings. The material condition of surrounding seismic equipment and structures was also inspected. The surrounding nonseismic equipment and structures were walked down to determine if any systems, structures or components could fall on and damage credited equipment. The licensee's review also assessed transportability of any credited portable equipment to ensure that the equipment can be readily transported to the desired location. A vendor-supplied engineering report assessed the structural vulnerabilities identified during the plant walkdowns for seismicity. The report also assessed plant equipment for survivability during a probable maximum flood. The licensee also reviewed memoranda of understanding for outside assistance that were credited as contingency actions for events far beyond design basis. The licensee assessed communication capabilities including on-site communication centers, equipment, communication lines and tower structures.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.

		The inspectors reviewed the Updated Safety Analysis Report to determine the maximum external flood level for the site and requirements associated with combating fires and floods. The inspectors also reviewed station procedures that provide guidance for responding to earthquakes, floods, fires, spent fuel pool casualties and severe accidents to identify plant equipment credited for mitigating these events. The inspectors independently walked down the licensee's equipment to ensure it was available and usable, and to ensure that the procedures could be accomplished as written. These walkdowns included contingency response equipment, external doors, the walls of external buildings, the fire protection system pumps, and portions of the main fire header.
		Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.
		The licensee determined that because the station had not been designed and licensed to postulate a fire after a safe shutdown earthquake, the firefighting equipment outside of the essential structures was not required to meet Class 1 seismic standards. Also, because Cooper Nuclear Station was not designed and licensed for internal or external flooding events resulting from a safe shutdown earthquake, these scenarios were considered to be beyond the design basis of the plant. The licensee identified a potential vulnerability associated with its ability to position various contingency components during a site-wide flood. For example, the licensee's ability to put in place the portable fire pump or portable diesel generator would be challenged with the river at probable maximum flood levels. The licensee identified that the diesel fire pump batteries could be impacted during a probable maximum flood. The administration building houses the technical support center and the operations support center but receives no flooding barriers per current side procedures. The flooding of this building could hamper the execution of the emergency plan following a safe shutdown earthquake concurrent with a probable maximum flood event. All of these issues have been entered into the station corrective action program for resolution. The inspectors' review did not identify a new issue.

EXIT MEETING SUMMARY

The inspectors presented the inspection results to Mr. D. Willis, General Manager of Plant Operations, and other members of licensee management at the conclusion of the inspection on April 28, 2011. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Austin, Manager, System Engineering
T. Barker, Manager, Quality Assurance
J. Bebb, Manager, Security
R. Beilke, Manager, Radiation Protection/Chemistry
S. Brown, Manager, Maintenance
D. Buman, Director of Engineering
S. DeRosier, Supervisor, Operations Training
L. Dewhirst, Manager, Corrective Action and Assessments
J. Flaherty, Licensing Engineer
T. Hottovy, Manager, Engineering Support
G. Mace, Manager, Nuclear Asset
D. Madsen, Licensing Engineer
D. Montgomery, Manager, Emergency Preparedness
M. Tackett, Assistant to General Manager of Plant Operations
D. VanDerKamp, Licensing Manager
D. Werner, Superintendent, Operations Training
D. Willis, General Manager of Plant Operations
A. Zaremba, Director Nuclear Safety Assurance

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events

PROCEDURES

NUMBER	TITLE	REVISION
5.9 SAMG	Severe Accident Management Guidance	6
5.1 INCEDENT	Site Emergency Incident	18
5.3 ALT-STRATEGY	Alternate Core Cooling Mitigating Strategies	26
5.5 AIRCRAFT	Aircraft Threat	20
2.4 FPC	Fuel Pool Cooling Trouble	23
EOP SAG-1	SAG-1 Flow Chart	4

EOP SAG 2AB	SAG-2A/B Flow Chart	3
EOP SAG 2CD	SAG-2C/D Flow Chart	4
EOP SAG 2EF	SAG-2E/F Flow Chart	4
EOP SAG 2G	SAG-2G Flow Chart	2

CONDITION REPORTS

CR-CNS-2011-2504	CR-CNS-2011-2714	CR-CNS-2011-2694
CR-CNS-2011-2727	CR-CNS-2011-2707	CR-CNS-2011-2778
CR-CNS-2011-2684	CR-CNS-2011-2776	CR-CNS-2011-2883

WORK ORDERS

4750942	4819277	4819377
4750583	5819634	4750584

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions

PROCEDURES

NUMBER	TITLE	REVISION
5.3 SBO	Station Blackout	23
0.4	Verification and Validation	52

CONDITION REPORTS

CR-CNS-2011-2506	CR-CNS-2011-2826	CR-CNS-2011-3234
CR-CNS-2011-3221	CR-CNS-2011-3336	CR-CNS-2011-3235
CR-CNS-2011-2815	CR-CNS-2011-2701	CR-CNS-2011-3348
CR-CNS-2011-2169	CR-CNS-2011-3394	CR-CNS-2011-3419
CR-CNS-2011-3420	CR-CNS-2011-3535	

WORK ORDERS

4750942	4819377	800000031734

MISCELLANOUS

NUMBER	TITLE	DATE / REVISION
INT008-03-06	Loss of Offsite Power/Steam Cooling Black Plant Procedure	13 Issue Date May 3, 2010

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design

PROCEDURES

NUMBER	TITLE	REVISION
5.1FLOOD		
0.16	Control of Doors	44
5.1BREAK	Pipe Break Outside of Containment	11
6.FLOOD.601	Flood Door Gap Examination	2
7.0.11	Flood Control Barriers	14
2.2.18	4160V Auxiliary Power Distribution	135
0.27.1	Periodic Structural Inspection of Structures	5

CONDITION REPORTS

CR-CNS-2011-3855	CR-CNS-2011-3854	CR-CNS-2011-3750
CR-CNS-2011-3715	CR-CNS-2011-2974	CR-CNS-2011-3849
CR-CNS-2011-3751	CR-CNS-2011-3903	CR-CNS-2011-3975

CALCULATIONS

NEDC 91-069	NEDC 98-038	NEDC 91-128
NEDC 91-066	NEDC 91-024	NEDC 91-037

MISCELLANOUS

NUMBER	TITLE
	Engineering Evaluation 02-059
DCD-38	Internal Flooding

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events

PROCEDURES

NUMBER	TITLE	REVISION
	Fire Hazard Analysis	
5.4 POST-FIRE	Post Fire Operational Information	39
5.4 FIRE-S/D	Fire Induced Shutdown From Outside Control Room	41
5.1 QUAKE	Earthquake	9

CONDITION REPORTS

CR-CNS-2011-2508

MISCELLANOUS

TITLE	DATE
Structural Vulnerability Assessment	April 6, 2011